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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/543,767      | 04/05/2000  | Yasuhiro Sato        | 00FN006US           | 6702             |

7590 10/22/2002

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VIENNA, VA 22182-3817

EXAMINER

CHOWDHURY, TARIFUR RASHID

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2871

DATE MAILED: 10/22/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/543,767

Applicant(s)

SATO, YASUHIRO

Examiner

Tarifur R Chowdhury

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 September 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☐ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) 2-4 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,5 and 6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 April 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2,4 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Election/Restrictions***

1. Claims 2-4 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 7.

***Priority***

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Specification***

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

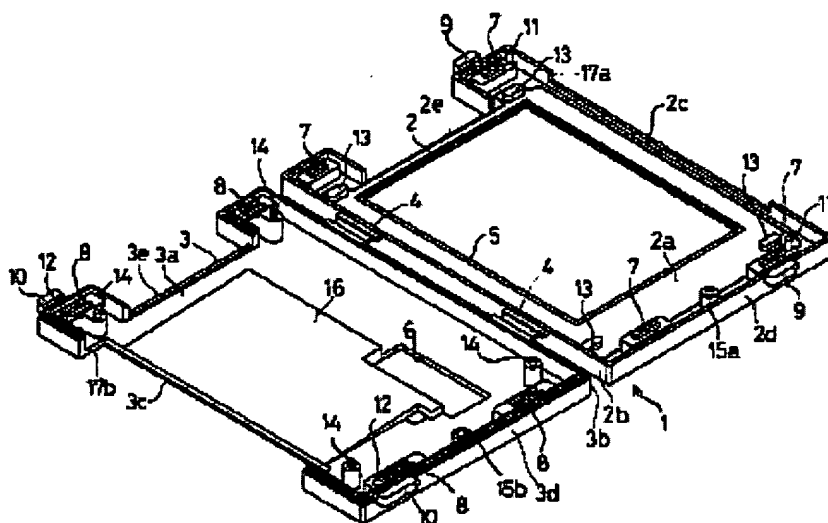
5. **Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Makoto Yoshimura (Makoto), JP 08-114802 A (provided by the applicant).**

6. Makoto shows in Figs. 1 and 3, a liquid crystal display having a liquid crystal display panel (21) held between an upper frame (2) and a lower frame (3), the upper frame (2) having a display window (22a) (Fig. 6), wherein:

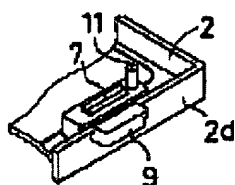
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- the upper frame (2) and the lower frame are coupled to each other via a hinge (4);

【図1】



【図3】



- the lower frame (3) has a first protrusion (12) formed in the vicinity of its end, and the upper frame (2) has a second protrusion (11) formed in the vicinity of its end, the second protrusion (11) to be fitted to the inside of the first protrusion (12); and
- the first protrusion (12) and the second protrusion (11) are formed to differ from each other in protruding direction.

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Makoto does not explicitly disclose the shape of the hinge. However, it is common and known in the art to use U-shaped hinge to couple two frames together for several advantages such as for strong bonding. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to use a U-shaped hinge in the device of Makoto so that a strong bond between the upper frame and the lower frame is established.

Accordingly, claim 1 would have been obvious.

**7. Claims 5 and are rejected under 35 U.S.C. 103(a) as being unpatentable over Makoto as applied to claim 1 above and in view of Toshiya et al., (Toshiya), JP 06-051308 A.**

8. Makoto does not explicitly disclose that the frames are vacuum formed of resin material.

Toshiya discloses a liquid crystal display device wherein the frame is vacuum formed of resin material. Toshiya also discloses that when the frames are vacuum formed of resin material, it is possible to obtain a small-sized, thin and durable liquid crystal display device (abstract).

Toshiya is evidence that ordinary workers in the art of liquid crystal would find a reason, suggestion or motivation to use frames that are vacuum formed of resin material.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the device of Makoto such that forming the

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frames of resin material obtained by vacuum molding so that a display device of small-sized, thin and durable is obtained, as per the teachings of Toshiya.

As to claim 6, the use of screen-printing as an electro-conductive pattern forming method is common and known in the art and thus would have been obvious to avail a proven technology.

### ***Conclusion***

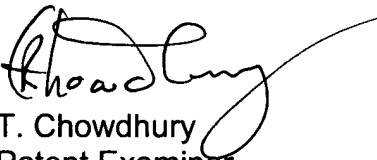
9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tarifur R Chowdhury whose telephone number is (703) 308-4115. The examiner can normally be reached on M-Th (6:30-5:00) Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William L Sikes can be reached on (703) 305-4842. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7005 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

TRC  
October 17, 2002

  
T. Chowdhury  
Patent Examiner  
Technology Center 2800